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(Amended) An active low-pass filter system including:

 a low-pass filter circuit including a resistive forward signal flow branch; and
 an isolated-integrator band-reject filter imbedded within the low-pass filter circuit,

 wherein the isolated-integrator band-reject filter forms part of the resistive forward signal flow branch.

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6. (Twice Amended) A power amplifier system for driving a load comprising: a pulse width modulation power circuit creating ripple spectra; an error amplifier and modulator circuit connected to an input of the pulse width modulation power circuit;

a demodulation filter connected between said pulse width modulation power circuit and the load;

a feedback control loop coupled to said error amplifier and modulator circuit and including:

an active low-pass filter;

a first resistive voltage divider circuit coupled between the output of said demodulation filter and a first input of said low-pass filter;

a feedback demodulation filter coupled to a second input of said low-pass filter and including at least one isolated-integrator band-reject filter; and

a second resistive voltage divider circuit coupled between the output of said pulse width modulation power circuit and said feedback demodulation filter.

-9. (New) A power amplifier system for driving a load comprising:

a pulse width modulation power circuit having an input and an output; an error amplifier and modulator circuit connected to the input of the pulse width modulation power circuit;

a demodulation filter connected to the output of the pulse width modulation power circuit;

a feedback control loop coupled to the error amplifier and modulator circuit and to the output of the pulse width modulation power circuit, the feedback control loop



including a feedback demodulation filter, wherein an isolated-integrator band-reject filter is imbedded within the feedback demodulation filter.

- 10. (New) The system of claim 9, wherein the isolated-integrator band-reject filter includes a variable resistor for tuning the isolated-integrator band-reject filter.
- 11. (New) The system of claim 9, wherein the feedback demodulation filter is operable as a low pass filter to remove pulse width modulated spectra from the feedback control loop, the pulse width modulated spectra produced by the pulse width modulation power circuit.
- 12. (New) The system of claim 9, wherein the feedback demodulation filter includes a resistive forward signal flow branch, the isolated-integrator band-reject filter being electrically connected within the resistive forward signal flow branch.
 - 13. (New) An active low-pass filter system comprising:
 a low pass filter circuit having an input terminal and an output terminal; and
 an isolated-integrator band-reject filter incorporated into the low pass filter circuit
 between the input terminal and the output terminal.
- 14. (New) The active low-pass filter system of claim 13, wherein the low pass filter circuit includes a resistive forward signal flow branch between the input terminal and the output terminal, the isolated-integrator band-reject filter incorporated into the resistive forward signal flow branch.
- 15. (New) The active low-pass filter system of claim 13, wherein the active low-pass filter system is at least a second order system.
- 16. (New) The active low-pass filter system of claim 13, wherein the low pass filter circuit includes a first resistor and a second resistor, the isolated-integrator band-reject filter electrically connected between the first and second resistors.

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17. (New) The active low-pass filter system of claim 16, wherein at least one of the first and second resistors has a resistive value of zero.

- 18. (New) The active low-pass filter system of claim 13, wherein the isolated-integrator band-reject filter includes at least three capacitors with equal value and at least two resistors with equal value.
- 19. (New) The active low-pass filter system of claim 13, wherein the low-pass filter circuit includes a Sallen & Key filter.
- 20. (New) The active low-pass filter system of claim 13, wherein the low-pass filter circuit includes a multiple feedback filter.
- 21. (New) The active low-pass filter system of claim 13, wherein the low-pass filter circuit includes a state variable filter.--